

even the air which gains admission being filtered through tissues and their secretions. This is one of those subjects which lead to the most tempting generalizations, but should be considered yet more as something interesting than settled.

THE GERMAN SCIENTIFIC EXPEDITION, under Dr. Koch, to investigate the Egyptian cholera has not yet reached any very definite results. The only thing set at rest is that the Bacillus is identical with that found in the case of Asiatic cholera.

WE NOTE that Dr. Farlow has received one of the numerous gold medals awarded by the juries of the late International Fisheries Exhibition, for his work on the marine algæ.

WE WOULD CALL attention to the capital address of Prof. E. Ray Lankester, as president of the biological section of the British Association, upon "The Endowment of Biological Research." It should be in the hands of all the boards of management of our colleges and universities, and may be found either in *Science* or *Nature*.

THE WAY THAT new species of fungi are pouring in upon us is rather overwhelming. Not a month passes without its lists of new species, which leads us to think either that we have never looked much for fungi before, or that specific lines are not yet well drawn.

WE HAVE JUST received notice of the death of Mr. Chas. E. Perkins, of Somerville, Mass. It will be remembered that he published in the GAZETTE for March of this year a list of the "Ballast Plants of Boston and Vicinity." He was a young man and a good collector, his large collection, left to the Middlesex Institute of Malden, being especially rich in introduced and ballast plants. He had in contemplation both a local flora and a garden flora, which his friends may be able to complete from his notes.

WE WOULD call attention to the extension of time given in competing for the GAZETTE prize, November 1 being substituted for May 1.

CURRENT LITERATURE.

Flora of Worcester county, Massachusetts. By Joseph Jackson. Published by the Worcester Nat. Hist. Soc. 1883. 48 pp. 8vo.

This society, but four years old, is doing a good work in bringing before the people of its own neighborhood information upon the various departments of natural history. This is done by placing in charge of its collections, which occupy three rooms, a competent custodian, whose services, not as guide only, but also as teacher, are freely at the disposal of the public. During the past year 20,000 visitors have availed themselves of this privilege. The pamphlet before us is but an outgrowth of this work, and is surely well done. The county extends north and south across the State and contains quite a diversity of surface so that both southern and northern New England may be said to be represented. Only the Phænogams and Vascular Cryptogams are included, not so much from desire, we infer, as from necessity. The list numbers 812 species, belonging to 387 genera. The only criticism that could be made is that there

is no mark to indicate introduced plants. True this work is done in Gray's Manual, but one can not always remember what it says, and may not care to look it up. Now that introduced plants are getting so thoroughly mingled with our indigenous flora, too great care can not be exercised in keeping them apart in our lists, for it is becoming a more difficult thing to do every year.

Catalogue of Canadian Plants. Part I.—Polypetalæ. By Prof. John Macoun. Montreal. 8vo. 192 pp.

This Catalogue is published by the Geological and Natural History Survey of Canada, under direction of Alfred R. C. Selwyn. Heretofore about the only knowledge of the Canadian flora we have had has come from the "Flora Boreali Americana," Torrey and Gray's Flora and Gray's Synoptical Flora. These works but incompletely represent it; the first from lack of exploration, the others chiefly from the fact that they only include the Polypetalæ and Gamopetalæ. The present Catalogue has been begun quite elaborately, and besides drawing from the sources above mentioned, is based upon very extensive explorations, not the least of which were made by the author himself. Under each species is given its synonymy, habitats and collectors. The range from Alaska to Newfoundland is a tremendous one, but of course in these northern regions the number of species will bear no such relation to area as further south. In the list are included 907 species, under 243 genera, but no attempt is made to separate introduced plants from the indigenous, further than a mention of the fact in the notes. The Rocky Mountain region seems to be the one most needing exploration, for the old collections, good as they were, covered a comparatively small area, and many of their plants need rediscovery. We imagine that such an exploration would result more in the establishment or not of old species than in new species. We certainly hope that the material for subsequent catalogues may speedily be gotten together and the good work pushed to its completion.

Thirty-third Annual Report of the State Museum of Natural History. (Report of the Botanist, Chas. H. Peck.) 50 pp. with two plates. 1880.

Thirty-fourth Annual Report. 58 pp. with four plates. 1881.

These reports are usually quite delayed, but full of new material when they do appear. Mr. Peck, in spite of ill health, seems to be constantly at work. In the 33d Report, besides a general list of "Plants not before reported," in which are many new species of fungi, is a paper upon the New York species of *Amanita*, which number 14, 4 of which are new. The two plates contain the figures of 14 new species, one of them, *Caliciopsis*, being a new genus related to *Tympanis*. In the 34th Report there is the same rich display of new species, and along with them a description of some of our commoner injurious parasites, such as corn smut, etc. The plates are excellent, but in the text sufficient prominence is not given to the specific names, especially of new species.

Report on the Michigan Forest Fires of 1881. No. 1 of Signal Service Notes. By William O. Bailey. Washington. 1882. 8vo. 16 pp. (with map and diagrams).

This gives a full and very interesting account of these great forest fires, a good map of the burned district, and some diagrams showing the principal directions of the fire. The causes assigned are of two kinds, the natural ones being such as prevailing southerly winds, an accumulation of hot air in consequence, an area of low atmospheric pressure north of the fires, opposing winds south of the center, a protracted drought, and dry soil. The "local causes" given are great areas of dead timber left standing, and carelessness of settlers in managing local fires.